

Amendments to the Claims

This listing of the claims will replace all prior versions and listings of the claims in the application.

Sub B1  
1. (currently amended) A method of performing server-side processing of postback input received from a client and associated with a client-side user interface element, the method comprising:

examining the postback input received from the client to determine an identifier of a target server-side control object;

identifying the target server-side control object based on the identifier of the target server-side control object;

passing the postback input received from the client to the target server-side control object; and

processing the postback input received from the client and passed to the target server-side control object.

2. (original) The method of claim 1 wherein the processing operation comprises changing a property of the target server-side control object; and further comprising:

generating authoring language data from the target server-side control object based on the property to define the client-side user interface element for transmission to the client.

3. (original) The method of claim 1 wherein the processing operation comprises raising a server-side event from the target server-side control object; and further comprising:

1 generating authoring language data from the target server-side control  
2 object based on the server-side event to define the client-side user interface  
3 element for transmission to the client.

4 4. (original) The method of claim 2 further comprising:  
5 creating a plurality of server-side control objects in a server-side control  
6 object hierarchy, prior to the operation of processing the postback input; and  
7 terminating the plurality of server-side control objects, after the operation of  
8 generating authoring language data.

9  
10 5. (original) The method of claim 2 further comprising:  
11 searching for the target server-side control object in a server-side control  
12 hierarchy based on the identifier;  
13 creating the target server-side control object in the server-side control  
14 hierarchy, if the target server-side control object is not found by the searching  
15 operation; and  
16 terminating the server-side control hierarchy, after the operation of  
17 generating authoring language data.

18 6. (original) The method of claim 1 wherein the identifier has a  
19 hierarchical identifier structure indicating a plurality of levels in a server-side  
20 control object hierarchy including a plurality of member server-side control  
21 objects, and the operation of identifying the target server-side control object  
22 comprises:

23 extracting a node level identifier from the identifier;  
24  
25

1 passing the node level identifier to a member server-side control object  
2 corresponding to the node level identifier;

3 identifying the member server-side control object as the target server-side  
4 control object, if the node level identifier identifies a leaf node of the identifier;

5 extracting a next node level identifier from the identifier of the target  
6 server-side control object, if the node level identifier does not identify a leaf node  
7 of the identifier, wherein the next node level identifier identifies a child server-  
8 side control object of the member server-side control object; and

9 performing recursively the passing and identifying operations and the  
10 operation of extracting a next node level identifier using the next node level  
11 identifier as the node level identifier and the child server-side control object as the  
12 member server-side control object, if the node level identifier does not identify a  
13 leaf node of the identifier.

14 7. (original) The method of claim 1 wherein the operation of  
15 processing the postback input comprises:

16 storing a postback data value as a property the target server-side control  
17 object.  
18

19 8. (original) The method of claim 7 wherein the target server-side  
20 control object initially stores an old data value as a property, and the operation of  
21 storing a postback data value comprises:

22 associating the postback data value with the property;

23 indicating a data change associated with the target server-side control  
24 object, if the postback data value passed to the target server-side control object is  
25 different than the old data value of target server-side control object; and

1 replacing the old data value with the postback data value in the target  
2 server-side control object.

3 9. (original) The method of claim 8 further comprising:  
4 raising a server-side data change event after the operation of replacing of  
5 the old data value, if a data change is indicated.

6  
7 10. (original) The method of claim 7 wherein the target server-side  
8 control object is one of a plurality of member server-side control objects in a  
9 server-side control object hierarchy, and the operation of storing a postback data  
10 value comprises:

11 storing postback data values for all of the member server-side control  
12 objects in the server side control object hierarchy; and

13 raising at least one server-side data change event after the operation of  
14 storing a postback data value for all member server-side control objects, if at least  
15 one data change is indicated.

16 11. (original) The method of claim 10 further comprising:  
17 receiving the server-side data change event from the target server-side  
18 control object; and

19 invoking a function of a non-user-interface server component, based on the  
20 server-side data change event.

21  
22 12. (original) The method of claim 1 wherein the operation of  
23 processing the postback input comprises:

24 processing a postback event using the target server-side control object.  
25

1 13. (original) The method of claim 12 wherein the operation of  
2 processing a postback event comprises:

3 extracting from the postback input a postback event argument associated  
4 with the identifier;

5 passing the postback event argument associated with the identifier to the  
6 target server-side control object; and

7 processing the postback event argument using the target server-side control  
8 object.

9 14. (original) The method of claim 13 wherein the operation of  
10 processing a postback input further comprises:

11 raising a server-side event from the target server-side control object,  
12 responsive to the operation of processing the postback event argument.

13 15. (original) The method of claim 14 further comprising:

14 receiving the server-side event from the target server-side control object;  
15 and

16 invoking a function of a non-user-interface server component, based on the  
17 server-side event.

18 16. (currently amended) A computer data signal embodied in a carrier  
19 wave by a computing system and encoding a computer program for executing a  
20 computer process performing server-side processing of postback input received  
21 from a client and associated with a client-side user interface element, the computer  
22 process comprising:  
23  
24  
25

1 examining the postback input received from the client to determine an  
2 identifier of a target server-side control object;

3 identifying the target server-side control object based on the identifier of  
4 the target server-side control object;

5 passing the postback input received from the client to the target server-side  
6 control object; and

7 processing the postback input received from the client and passed to the  
8 target server-side control object.

9  
10 17. (currently amended) A computer program storage medium readable  
11 by a computer system and encoding a computer program for executing a computer  
12 process performing server-side processing of postback input received from a client  
13 and associated with a client-side user interface element, the computer process  
14 comprising:

15 examining the postback input received from the client to determine an  
16 identifier of a target server-side control object;

17 identifying the target server-side control object based on the identifier of  
18 the target server-side control object;

19 passing the postback input received from the client to the target server-side  
20 control object; and

21 processing the postback input received from the client and passed to the  
22 target server-side control object.

23 18. (original) A computer program product for processing postback  
24 input received from a client and associated with a client-side user interface  
25 element, the computer process comprising:

1 creating a plurality of server-side control objects in a server-side control  
2 object hierarchy, the server-side control object hierarchy including a target server-  
3 side control object associated with the client-side user interface element;

4 passing the postback input to the target server-side control object;

5 processing the postback input received by target server-side control object;

6 and

7 generating authoring language data from the plurality of server-side control  
8 objects to define a web page for display on a client.

9 19. (original) The computer program product of claim 18 wherein the  
10 computer process further comprises:

11 receiving an identifier associated with the target server-side control object;

12 and

13 identifying the target server-side control object within the server-side  
14 control object hierarchy, based on the identifier.

15 20. (original) The computer program product of claim 18 wherein the  
16 computer process further comprises:

17 terminating the plurality of server side control objects, after the operation of  
18 generating authoring language data.

19 Please add the following new claims 21-37:  
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21

22 21. (new) A method comprising:

23 examining input data received from a client to identify a corresponding  
24 target server-side control object, the input data being associated with a client-side

25 user interface element; and

1 passing the input data to the identified target server-side control object to  
2 process the input data.

3 22. (new) A computer program product embodied on a computer  
4 program storage medium readable by a computer system for executing a computer  
5 process, the computer process comprising:

6 examining input data received from a client to identify a corresponding  
7 target server-side control object, the input data being associated with a client-side  
8 user interface element; and

9 passing the input data to the identified target server-side control object to  
10 process the input data.

11  
12 23. (new) A computer system comprising:

13 a plurality of server-side control objects in a server-side control object  
14 hierarchy on a server, the server-side control object hierarchy including a target  
15 server-side control object associated with a client-side user interface element on a  
16 client, such that input data received by the server from the client-side user  
17 interface element is passed within the server to the target server-side control object  
18 in the server-side control object hierarchy; the plurality of server-side control  
19 objects generating authoring language data to define a web page for display on the  
20 client.

21 24. (new) A computer program product embodied in a computer  
22 readable medium for executing a computer process, the computer process  
23 comprising:  
24  
25



1 generating authoring language data from a plurality of server-side control  
2 objects at a server to define a page for display on a client, the authoring language  
3 data including a script that is tagged to be executed by the server to process input  
4 data received from the client.

5 25. (new) The computer program product of claim 24, wherein each  
6 server-side control object corresponds to a client-side user interface element.

7  
8 26. (new) A method comprising:

9 generating authoring language data from a plurality of server-side control  
10 objects at a server to define a web page for display on a client, the authoring  
11 language data including a script that is tagged to be executed by the server to  
12 process input data received from the client.

13 27. (new) A method comprising:

14 receiving input data from the client at the server, the input data being  
15 associated with an individual client-side user interface element on the client;

16 generating a hierarchy of server-side control objects on a server, each  
17 server-side control object corresponding to a client-side user interface element on  
18 a client;

19 identifying a server-side control object in the hierarchy to which the  
20 individual client-side user interface element corresponds; and

21 processing the input data using the identified server-side control object.

22  
23 28. (new) The method of claim 27 wherein the processing operation  
24 comprises:

1 setting a property value of the identified server-side control object based on  
2 the input data.

3 29. (new) The method of claim 27 wherein the processing operation  
4 comprises:

5 raising an event in the identified server-side control object based on the  
6 input data.

7  
8 30. (new) The method of claim 27 further comprising:

9 generating authoring language data from a plurality of server-side control  
10 objects at a server to define a page for display on the client, the page including the  
11 individual client-side user interface element.

12 31. (new) The method of claim 27 further comprising:

13 generating authoring language data from a plurality of server-side control  
14 objects at a server to define a page for display on the client, the authoring language  
15 data including a script that is tagged to be executed by the server to process input  
16 data received from the client.

17  
18 32. (new) A computer program product embodied in a computer  
19 readable medium for executing a computer process, the computer process  
20 comprising:

21 receiving input data from the client at the server, the input data being  
22 associated with an individual client-side user interface element on the client;

23 generating a hierarchy of server-side control objects on a server, each  
24 server-side control object corresponding to a client-side user interface element on  
25 a client;

1 identifying a server-side control object in the hierarchy to which the  
2 individual client-side user interface element corresponds; and

3 processing the input data using the identified server-side control object.

4  
5 33. (new) The computer program product of claim 32 wherein the  
6 processing operation comprises:

7 setting a property value of the identified server-side control object based on  
8 the input data.

9  
10 34. (new) The computer program product of claim 32 wherein the  
11 processing operation comprises:

12 raising an event in the identified server-side control object based on the  
13 input data.

14  
15 35. (new) The computer program product of claim 32 wherein the  
16 computer process further comprises:

17 generating authoring language data from a plurality of server-side control  
18 objects at a server to define a page for display on the client, the page including the  
19 individual client-side user interface element.

20  
21 36. (new) The computer program product of claim 32 wherein the  
22 computer process further comprises:

23 generating authoring language data from a plurality of server-side control  
24 objects at a server to define a page for display on the client, the authoring language  
25 data including a script that is tagged to be executed by the server to process input  
data received from the client.

37. (new) A method comprising:

creating a plurality of server-side control objects in a server-side control object hierarchy, the server-side control object hierarchy including a target server-side control object associated with the client-side user interface element;

passing the input data to the target server-side control object;

processing the input data received by target server-side control object; and

generating authoring language data from the plurality of server-side control objects to define a web page for display on a client.